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PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION

Improvements in Devices for Preventing the Sinking of Canoes
and like Small Water Craft

I, HAROLD EDGAR DU PRÉ, a British subject, of 42, King Street, Jersey, Channel Islands, do hereby declare the nature of this invention to be as follows:—

As is well known, canoes and like small water craft which have a low freeboard are very prone to ship water and, in some circumstances, to sink or capsize quite readily if the balance of the craft is not well maintained or if weather conditions become unfavourable.

Now, in order to minimise as far as possible the risks and the inconvenience with which canoeing is normally attended, this invention has for its object the provision of a simple and effective attachment by means of which a canoe or other light small craft can be rendered unsinkable and whereby the contents of such a craft other than those contained in the cockpit may be effectively protected against damage by wetting due to the craft shipping water and against both wetting and possible loss due to the craft capsizing.

According to this invention therefore, I provide for use with a canoe or like small craft a lining attachment composed of waterproof material and adapted on being secured to the gunwale or coaming to form within the craft a hold or cockpit capable of accommodating the passenger or passengers and to form between it and the hull of the craft an airtight and watertight buoyancy chamber adapted to prevent complete flooding of the craft thus rendering it unsinkable.

This lining attachment is preferably composed of waterproof canvas or other like fabric whereby it may be collapsed and folded into a small compass when detached from the canoe or other craft and any suitable means may be utilised for making a secure and tight connection between the edge portions of the lining and the gunwale or coaming of the craft with which it is used.

A further advantage arising from the use of this device is the fact that, in case of shipping water, the craft will not become unmanageable as the water shipped

will be confined solely to the comparatively small area of the cockpit.

In one way of carrying this invention into practical effect the improved cockpit attachment as constructed for use with a canoe having fore and aft parts covered by decking consists of a shallow but elongated bag-like structure of canvas or other waterproof flexible fabric, the upper edge part of mouth of the structure having a periphery corresponding with that of the gunwale or coaming about the cockpit of the craft in order that a close fitting and watertight connection may be made between these parts when the attachment is to be put into service. For this purpose any suitable means of attachment which will enable a close and comparatively watertight connection will suffice, but it will prove convenient in many cases to affix slats or laths to the edge portion of the attachment which can be clamped securely to the gunwale or coaming as by nuts and bolts. The edge-part of the attachment may be fastened either to slats on one side only or between slats on both sides, as thought desirable. The edge portion of the attachment whether furnished or not with the laths mentioned may be reinforced suitably and if it is to be secured by nuts and bolts appropriately spaced holes may be formed therein and these reinforced as by eyelet rivets.

That part of the attachment depending from the mouth is preferably elongated forwardly whereby it may extend under the decked-over forepart of the boat and there provide a space to admit the feet and legs of a passenger seated in the cockpit. Moreover if desired one or more back rests may be furnished for the use of the occupants of the boat these being conveniently provided by a cross piece of webbing, canvas or like material extending between the opposed edges of the cockpit attachment or alternatively arranged to connect with the means fastening the attachment to the gunwale or coaming in which event the ends of the cross piece may be eyeletted whereby it may take over the bolts used in securing the cockpit attach-

ment in place.

As will be understood when this device is in use any water shipped will have access only to the interior of the cockpit attachment but cannot get in the space between the attachment and the hull proper which is to constitute a buoyancy chamber rendering the craft proof against sinking. For the comfort of the occupants therefore it is proposed that canvas or other water-

proof containers or trays be furnished to accommodate the seats or cushions utilised in order to prevent these being rendered wet by water on the floor of the attachment.

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Dated this 22nd day of May, 1939.

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COMPLETE SPECIFICATION

Improvements in Devices for Preventing the Sinking of Canoes and like Small Water Craft

I, HAROLD EDGAR DU PRÉ, a British subject, of 42, King Street, Jersey, Channel Islands, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

As is well known open or partly decked canoes and like small water craft which have a low freeboard are very prone to ship water and, in some circumstances, to sink or capsize quite readily if the balance of the craft is not well maintained or if weather conditions become unfavourable.

Now, in order to minimise as far as possible the risks and the inconvenience with which canoeing is normally attended, this invention has for its object the provision of a simple and effective attachment by means of which a canoe or other normally open light small craft can be rendered unsinkable and whereby the contents of such a craft other than those contained in the cockpit may be effectively protected against damage by wetting due to the craft shipping water and against both wetting and possible loss due to the craft capsizing.

According to this invention therefore, I provide for use with a canoe or like normally open small craft a separate and removable lining attachment composed of waterproof material and adapted on being secured to the gunwale or coaming to form within the craft a hold or cockpit capable of accommodating the passenger or passengers and to form between it and the hull of the craft an airtight and watertight buoyancy chamber adapted to prevent complete flooding of the craft thus rendering it unsinkable.

This lining attachment is preferably composed of waterproof canvas or other like fabric whereby it may be collapsed and folded into a small compass when de-

tached from the canoe or other craft and any suitable means may be utilised for making a secure and tight connection between the edge portions of the lining and the gunwale or coaming of the craft with which it is used.

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A further advantage arising from the use of this device is the fact that, in case of shipping water, the craft will not become unmanageable as the water shipped will be confined solely to the comparatively small area of the cockpit.

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It has previously been proposed to construct a self-righting lifeboat, float or like vessel from a hull which is weighted at the bottom and closed above by a deck having in it as an integral part of the structure a depression or well adapted to accommodate the legs and lower part of the body of an occupant. The present invention is distinguished clearly from such prior proposal in that it furnishes a separate and removable lining attachment adapted for rendering a canoe or other light small craft unsinkable.

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The invention is hereinafter more fully described with reference to the accompanying drawing wherein:—

Fig. 1 shows in perspective a partly decked canoe furnished with a collapsible lining attachment adapted to be secured in place by spring clips.

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Fig. 2 shows in transverse section on a larger scale a portion of the canoe gunwale and of the cockpit attachment.

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Fig. 3 is a similar view to Fig. 2 but illustrating an alternative means for connecting the attachment to the canoe.

Figs. 4 and 5 are fragmentary perspective views illustrating two further methods for attaching the cockpit device to the canoe.

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Fig. 6 shows in perspective a canoe adapted for sailing and furnished with a cockpit attachment in accordance with this invention.

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Referring now to Figs. 1 and 2 the improved cockpit attachment as constructed for use with a partly decked canoe consists of a shallow but elongated bag-like structure *a* of canvas or other waterproof flexible fabric; the upper edge or mouth part *b* of the structure is arranged to have a periphery corresponding to that of the gunwale or coaming *c* which surrounds the actual cockpit opening of the canoe *d*, in order than when said lining structure is inserted in place within the canoe a close fitting between the parts to be connected may be ensured. For the purpose of effecting a connection between the attachment and the canoe the edge portion *b* of the attachment is made sufficiently wide to enable it to be turned about the upper edge of the coaming and lapped over the outer face thereof when a secure fastening between these parts can be effected by applying at intervals along the coaming spring clips such as those shown at *e* which serve to nip the canvas or like material tightly upon the coaming *c*.

If desired additional security may be afforded by forming in the marginal part of the cockpit attachment a hem *b*¹ containing a draw-string or cord *b*² the ends of which are made accessible at some convenient point whereby when the attachment has been placed in position and engaged with the coaming *c* said string or cord may be drawn tight and made fast thereby holding the hemmed portion of the attachment at all points in close contact with the coaming *c*. By forming a peripherally directed groove about the outer surface of the coaming into which the hem *b*¹ may engage or by furnishing an outwardly projecting bead at the upper part of the coaming beneath which the hem may engage, the connection effected by the draw string or cord *b*² may be rendered even more secure and could in that event be relied upon as a means of attachment with or without the spring clips *e*.

The cockpit attachment *a* is preferably made sufficiently deep to extend downwardly to the floor of the canoe whereby the weight of the passengers carried is sustained by the canoe floor and the main portion of the attachment may be elongated forwardly at *a*¹ whereby it is enabled to extend part way under the fore deck and there afford accommodation for the feet and legs of a passenger seated in the cockpit of the canoe. Furthermore if desired one or more back rests such as that shown at *f* may be furnished for the use of the occupants of the boat these being conveniently provided by cross pieces of webbing, canvas, or like material extending between the opposed edges of the cockpit attachment or alternatively arranged

to connect with the means fastening the attachment to the canoe. Thus where the attachment is secured in place by nuts and bolts as hereinafter described the ends of such cross pieces might be eyeletted whereby they may be engaged with such bolts used for fastening the cockpit attachment.

In a modified form of my invention the marginal parts of the cockpit attachment *a* are reinforced by slats *g* preferably of a flexible nature and are arranged to be secured to the inner side of the coaming *c* of the canoe by bolts *g*¹ furnished with wing nuts *g*² as shown in Fig. 3 said bolts being passed through suitable holes made at spaced intervals in the respective parts. The reinforcing slats *g* which are used may be secured to the cockpit attachment as for example by the use of eyelet rivets or otherwise or they could if preferred be separate and detachable parts.

A further method enabling connection to be effected between the cockpit attachment and the canoe is illustrated in Fig. 4 wherein the marginal part *b* of the attachment which is arranged to lap over the outer face of the coaming *c* is eyeletted at intervals as shown at *h* whereby it may be engaged with screw-studs *h*¹ projecting outwardly from the coaming *c*, wing nuts *h*² being furnished to hold the marginal parts when placed in this position. If desired the marginal part of the attachment may be hemmed as at *b*¹ and may be furnished with a draw-string or cord *b*² for use as explained with reference to Fig. 2 and the face of the coaming may be grooved as described in connection with Fig. 2.

A further modified form of my invention is shown in Fig. 5 wherein the marginal part *b* of the cockpit attachment *a* arranged as in the previous example to lap over the outer side of the coaming *c* is furnished at spaced intervals with press-stud fasteners *i* which can be snapped over co-acting studs *i*¹ affixed at appropriate points on the coaming *c*. Here again the marginal part of the attachment may be furnished with a hem *b*¹ with a draw-string or cord *b*² as previously described. The face of the coaming *c* may be grooved as described in connection with Fig. 2.

Where it is desired to utilise the improved cockpit attachment with a canoe as in Fig. 6 adapted for sailing in that it is arranged to have a mast *j* stepped into a block *j*¹ at fore part of the cockpit the forward portion of the cockpit attachment may be bifurcated as at *a*² whereby its two parts may lie on opposite sides of the mast. Moreover assuming in this case connection is made between the canoe attachment and the outside of the coaming that portion

of the attachment extending over the mast-sustaining-block j^1 must be apertured to permit the passage of the mast.

As will be appreciated when the improved attachment is in use in connection with a canoe any water shipped will have access only to the interior of the cockpit attachment but cannot get into the space between the attachment and the hull proper which therefore constitutes a buoyancy chamber rendering the craft proof against sinking.

For the comfort of the occupants therefore it is proposed that canvas or other waterproof containers or trays be furnished to accommodate the seats or canvas-covered cushions utilised in order to prevent these being rendered wet by any water inadvertently finding its way to the floor of the attachment in launching or otherwise. As will be understood the space between the canoe hull and the attachment may be utilised in part for the stowage of spare clothing or other gear which when so carried will be adequately protected against both wetting and possible loss in the event of the craft capsizing or shipping water.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A device for preventing the sinking of canoes and like normally open small water craft comprising a separate and removable lining attachment of waterproof material adapted to be secured to the gunwale or coaming of the craft and thereby to enclose between it and the hull of the craft a substantially airtight and water-

tight chamber.

2. A cockpit attachment for preventing the sinking of canoes and like normally open small craft consisting of a separate and removable bag-like structure of canvas or other waterproof flexible fabric adapted to constitute a lining to the canoe cockpit and having its marginal parts arranged for close connection with the gunwale or coaming of the craft.

3. A device according to claim 1 or claim 2, wherein a plurality of spring clips are adapted to secure the marginal parts of the attachment to the gunwale or coaming of the craft.

4. A device according to claim 1 or claim 2, wherein the marginal parts of the attachment are apertured and arranged to be engaged with bolts secured to the gunwale or coaming of the craft.

5. A device according to claim 1 or claim 2 wherein the marginal parts of the attachment and the gunwale or coaming of the craft are arranged to be connected by press stud fastenings.

6. In a device according to claim 1 or claim 2, the provision of a draw-string or cord associated with the marginal part of the attachment whereby the latter may be contracted into close connection with the gunwale or coaming of the craft.

7. The improved attachment device for preventing the sinking of canoes or other normally open small craft substantially as herein described with reference to one or other of the forms illustrated in the accompanying drawings.

Dated this 7th day of September, 1939.

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